Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A frequency-selective circuit comprising:

an active device providing an input port and an output port, the active device having a bandwidth defined by a cutoff frequency;

a reactive component coupled to the output port; and

a compensation resistance coupled to the reactive component, wherein the compensation resistance is effective to compensate for a bandwidth limitation of the active device, the compensation resistance having a resistance value that is inversely proportional to a reactance value of the reactive component.

Claim 2 (original): The frequency-selective circuit defined in Claim 1, wherein the reactive component comprises a capacitor.

Claim 3 (original): The frequency-selective circuit defined in Claim 2, wherein the compensation resistance comprises a compensation resistor and wherein the compensation resistor has a resistance value that is inversely proportional to a tangent of a phase-shift at a predetermined compensation frequency.

Claim 4 (cancel)

Claim 5 (original): The frequency-selective circuit defined in Claim 3, wherein the predetermined compensation frequency is a frequency at which a Q_{max} of the frequency-selective circuit appears.

Claim 6 (original): The frequency-selective circuit defined in Claim 1, wherein the active device comprises an operational transconductance amplifier (OTA).

Claim 7 (original): The frequency-selective circuit defined in Claim 6, wherein the reactive component comprises a capacitor.

Claim 8 (original): The frequency-selective circuit defined in Claim 7, wherein the compensation resistance comprises a compensation resistor and wherein the compensation resistor has a resistance value that is proportional to a tangent of a phase-shift at a predetermined compensation frequency.

Claim 9 (original): The frequency-selective circuit defined in Claim 8, wherein the compensation resistor has a resistance value that is inversely proportional to a capacitance value of the capacitor.

Claim 10 (currently amended): The frequency-selective circuit defined in Claim 7, wherein the compensation resistance comprises a resistor and, at a predetermined compensation frequency, the ~~compensation~~ resistor has a resistance value that is proportional to a tangent of a phase-shift of the OTA transconductance at the predetermined compensation frequency.

Claim 11 (currently amended): A frequency-selective circuit comprising:

an operational transconductance amplifier (OTA) having a bandwidth-limited transconductance that is defined by a cutoff frequency;

a capacitor coupled to an output of the OTA so as to reflect an inductor at an input of the OTA; and

a compensation resistor coupled to the capacitor and effective to compensate for a bandwidth limitation of the transconductance.

Claim 12 (currently amended): The frequency-selective circuit defined in Claim 11, wherein, at a predetermined compensation frequency, the compensation resistor has a resistance value that is inversely proportional to a tangent of a phase-shift at [[a]] the predetermined compensation frequency and inversely proportional to a capacitance value of the capacitor.

Claim 13 (original): The frequency-selective circuit defined in Claim 12, wherein the frequency-selective circuit exhibits a Q_{max} and a Q_{min}, and wherein the predetermined compensation frequency is selected to correspond to Q_{max}.

Claim 14 (currently amended): A method of compensating for a bandwidth limitation of an active frequency-selective circuit, the method comprising:

determining a compensation frequency;

determining a value of an effective negative resistance that results, at least in part, from a bandwidth limitation of an active device in the active frequency-selective circuit; and

providing in the frequency-selective circuit a compensation resistor that, at the compensation frequency, is effective to compensate the negative resistance.

Claim 15 (original): The method defined in Claim 14, wherein the compensation frequency is a frequency at which a Q_{max} of the active frequency-selective circuit occurs.

Claim 16 (currently amended): The method defined in Claim 14, wherein the active frequency-selective circuit comprises:

[[an]] the active device providing an input port and an output port, the active device having a bandwidth defined by a cutoff frequency; and

a reactive device coupled to the output port.

Claim 17 (original): The method defined in Claim 16, further comprising:

coupling the compensation resistor to the reactive device.

Claim 18 (original): The method defined in Claim 17, wherein the compensation resistor is selected to have a resistance value, at the compensation frequency, that is inversely proportional to the tangent of a phase-shift at the compensation frequency.

Claim 19 (original): The method defined in Claim 16, wherein the active device comprises an operational transconductance amplifier (OTA) having a transconductance that is bandwidth limited to a frequency approximate to the cutoff frequency.

Claim 20 (currently amended): The method defined in Claim [[17]] 19, further comprising:

coupling the compensation resistor to the reactive device.

Claim 21 (original): A method as defined in Claim 20, wherein the compensation resistor is selected to have a resistance value, at the compensation frequency, that is inversely proportional to a phase-shift at the compensation frequency.

Claim 22 (original): The method defined in Claim 21, wherein the active frequency-selective circuit exhibits a Q_{max} and a Q_{min}, the method further comprising:

effecting compensation of the negative resistance at a frequency corresponding to Q_{max}.

Claim 23 (original): A Gm-C filter circuit comprising:

an input node;

an output node;

an intermediate node;

a return node;

a first compensated reactive branch coupled between the input node and the intermediate node; and

a second compensated reactive branch coupled between the output node and the intermediate node.

Claim 24 (currently amended): The Gm-C filter defined in Claim 23, wherein the first compensated reactive branch comprises:

a first operational transconductance amplifier (OTA) device, the first OTA device having an input port and having a bandwidth defined by a first cutoff frequency;

a first reactive device coupled to ~~the~~ an output port of the first OTA device; and

a first compensation resistance coupled to the first reactive device; and wherein the second compensated reactive branch comprises:

a second OTA device, the second OTA device having an input port and having a bandwidth defined by a second cutoff frequency;

a second reactive device coupled to ~~the~~ an output port of the second OTA device; and

a second compensation resistance coupled to the second reactive device.

Claim 25 (currently amended): The Gm-C filter defined in Claim [[23]] 24, wherein the first cutoff frequency is substantially equal to the second cutoff frequency.

Claim 26 (currently amended): The Gm-C filter defined in Claim [[23]] 24, wherein the first compensation resistance is effective to compensate for a bandwidth limitation of the first OTA device and the second compensation resistance is effective to compensate for a bandwidth limitation of the second OTA device.

Claim 27 (currently amended): The Gm-C filter defined in Claim [[23]] 24, wherein the first reactive device comprises a first capacitor and a second reactive device comprises a second capacitor.

Claim 28 (original): The Gm-C filter defined in Claim 26, wherein the first compensation resistance comprises a first compensation resistor having a first resistance value that is inversely proportional to the tangent of a phase-shift at a first compensation frequency and wherein the second compensation resistance comprises a second compensation resistor having a second resistance value that is inversely proportional to the tangent of a phase-shift at a second compensation frequency.

Claim 29 (currently amended): The Gm-C filter defined in Claim 27, wherein, at the compensation frequency, the first resistance value is inversely proportional to a capacitance value of the first capacitor and the second resistance value is inversely proportional to a capacitance value of the second capacitor.

Claim 30 (currently amended): The Gm-C filter defined in Claim 28, wherein the Gm-C filter circuit exhibits at least a Q_{max} and a Q_{min} and wherein the first compensation frequency is selected to correspond to the Q_{max}.

Claim 31 (original): The Gm-C filter defined in Claim 29, wherein the first OTA device and the second OTA device each comprise:

a first OTA having differential inputs and differential outputs: and

a second OTA having differential inputs and differential outputs, and wherein the differential outputs of the first OTA are coupled to the differential inputs of the second OTA; and

the differential outputs of the second OTA are coupled to the differential inputs of the first OTA.

Claim 32 (currently amended): A system comprising:

a low-noise amplifier (LNA) to receive a modulated carrier signal;

a mixer coupled to the LNA;

a demodulator coupled to the mixer; and

a bandwidth-compensated filter coupled to the LNA, the bandwidth-compensated filter comprising:

an active device providing an input port and an output port, the active device having a bandwidth defined by a cutoff frequency;

a reactive component coupled to the output port; and

a compensation resistance coupled to the reactive component, wherein the compensation resistance is effective to compensate for a bandwidth limitation of the active device, the reactive component comprising a capacitance and wherein the compensation resistance comprises a compensation resistor having a resistance value that is inversely proportional to a product of a capacitance value of the capacitance and a tangent of a phase-shift at a predetermined compensation frequency.

Claim 33 (cancel)

Claim 34 (original): The system defined in Claim [[33]] 32, wherein the active device comprises an operational transconductance amplifier (OTA) having a bandwidth-limited transconductance that is defined by [[a]] the cutoff frequency.

Claim 35 (currently amended): The system defined in Claim 34, wherein the phase-shift is the phase-shift of the transconductance at the predetermined compensation frequency.

Claim 36 (currently amended): The system defined in Claim 35, wherein the predetermined compensation frequency is the frequency at which a maximum Q of the bandwidth-compensated filter occurs.

Claim 37 (new): The frequency-selective circuit defined in Claim 11, further comprising a second OTA coupled to the OTA, the second OTA having a second capacitor coupled to an output of the second OTA so as to reflect an inductor at an input of the second OTA.

Claim 38 (new): The frequency-selective circuit defined in Claim 37, further comprising a second compensation resistor coupled to the second capacitor to compensate for a negative reflected resistance of the second OTA.